

What is claimed is:

1. A liquid droplet ejection apparatus comprising:
a function liquid droplet ejection head disposed
such that a nozzle surface thereof lies in parallel with
a workpiece;

gap measuring means for measuring a workpiece gap
between a workpiece surface and a nozzle surface; and

gap adjusting means for adjusting the workpiece gap
based on a result of measurement by said gap measuring
means, said adjusting being made by relative movement of
said function liquid droplet ejection head and said
workpiece in a vertical direction.

2. The apparatus according to claim 1, wherein said
function liquid droplet ejection head is mounted on a
carriage, and wherein said gap adjusting means comprises:

a base which supports said carriage in a manner
slidable in a vertical direction;

an actuator which is fixed to said base;

a male screw member which is rotated in one
direction and in an opposite direction by said actuator;
and

a female screw member which is provided in said
carriage so as to engage in a screwed manner with said
male screw member.

3. The apparatus according to claim 1, wherein said
gap adjusting means moves said function liquid ejection
head in a vertical direction relative to the workpiece,
said apparatus further comprising:

a function liquid tank for supplying said function
liquid droplet ejection head with a function liquid; and

water head adjusting means for adjusting a water head of said function liquid ejection head relative to said function liquid tank by vertically moving said function liquid droplet tank based on the result of measuring by said gap measuring means.

4. The apparatus according to claim 3, wherein said function liquid tank is held by a tank holder, and wherein said water head adjusting means comprises:

a tank base for supporting said tank holder in a manner slidable in a vertical direction;

an actuator which is fixed to said tank base;

a male screw member which is rotated by said actuator in one direction and in an opposite direction; and

a female screw member which is provided in said tank holder so as to be engaged in a screwed manner with said male screw member.

5. The apparatus according to claim 3, further comprising:

a function liquid supply means for supplying said function liquid tank with a function liquid; and

a liquid level sensor for detecting a liquid level inside said function liquid tank,

wherein said function liquid supply means supplies the function liquid so as to attain a constant liquid level in said function liquid tank based on a result of detection by said liquid level sensor.

6. The apparatus according to claim 1, wherein said function liquid droplet ejection head is mounted on said carriage, and wherein said gap measuring means comprises:

position measuring means for measuring a position of the workpiece in a vertical direction, said position measuring means being mounted on said carriage; and

computing means for computing the workpiece gap based on a result of measurement by said position measuring means.

7. The apparatus according to claim 1, wherein said workpiece is set in position on a worktable, and wherein said gap measuring means comprise:

position measuring means for measuring a position of the workpiece and a position of the worktable in a vertical direction; and

computing means for computing the workpiece gap based on a result of measurement by said position measuring means.

8. The apparatus according to claim 1, further comprising:

plural kinds of function liquid droplet ejection heads having function liquids to be filled and/or specification which are different from one another;

a carriage for mounting thereon said plural kinds of function liquid droplet ejection heads;

a head stocker for holding in stock said plural kinds of function liquid droplet ejection heads in a replaceable manner; and

a head transfer mechanism for transferring said function liquid droplet ejection heads between said carriage and said head stocker.

9. The apparatus according to claim 8, further comprising: function liquid supply means for

independently supplying said plural kinds of function liquid ejection heads with the function liquids, wherein said function liquid supply means comprises a plurality of function liquid tanks corresponding to said plural kinds of function liquid droplet ejection heads, and wherein said plurality of function liquid tanks and said plural kinds of function liquid droplet ejection heads are respectively connected to each other through a tube.

10. A method of manufacturing an electrooptic device, comprising forming a film-forming part on the workpiece by the function liquid droplet by means of the liquid droplet ejection apparatus as set forth in claim 1.

11. An electrooptic device in which a film-forming part is formed on the workpiece by the function liquid droplet by means of the liquid droplet ejection apparatus as set forth in claim 1.

12. An electronic device having mounted thereon the electrooptic device as set forth in claim 11.